no possible good can be effected by firm pressure, which will almost certainly produce or increase the symptoms of intra-cranial irritation.

From what has been stated, the following general conclusions may be drawn:—

1. Simple fracture of the vault of the skull may give rise to a collection under the scalp of the cerebro-spinal fluid; coming, it may be, only from an opened ventricular cavity.
2. Such traumatic cephalhydrocele may be developed quickly, or only after the lapse of a number of days or even weeks.
3. The condition is one that has thus far been noticed only in young subjects.
4. The accident is quite likely to prove fatal from lepto-meningitis or meningo-encephalitis.
5. Operative interference should be restricted to the removal by aspiration of a limited amount of fluid; and such aspiration should be made only when severe pressure symptoms have manifested themselves.
6. A similar fluid accumulation may occur after closure of the external wound of a compound vault-fracture or of a trephining.

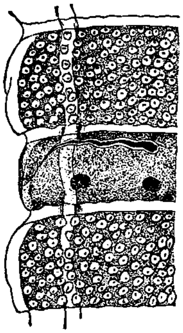
ARTICLE VIII.

OCCURRENCE OF A RARE HUMAN TAPEWORM (TÆNIA FLAVOPUNCTATA).

By JOSEPH LEIDY, M.D., Professor of Anatomy in the University of Pennsylvania.

RECENTLY, Prof. William Pepper sent to the writer for examination some little tapeworms, which were reported to have been expelled from a child of three years of age, after the administration of santonin. Dr. T. V. Crandall, in whose practice the case occurred, informs us that the child, a boy, of German parentage, born in Philadelphia, had been weaned at twenty months, and since had partaken of the ordinary articles of food. The mother had previously noticed the passage of worms from the child, which led her to apply to the physician for treatment. Since then, nothing further has been learned respecting the condition of the patient.

The specimens consist of a dozen fragments, apparently of three tapeworms, which reached the length of about a foot to fifteen inches or more. Unfortunately, from all the fragments the head has been torn away and lost, though several delicate pieces were certainly close to the neck. The anterior part of the body is greatly attenuated, thread-like, and only about one-tenth of a millimetre in diameter where most delicate. The widest part of the body posteriorly, where the joints are mature, is two and a quarter millimetres in diameter. In their present condition, the specimens, preserved in alcohol, are of a cream colour generally, but mature portions are pale brownish, due to the colour of the contained eggs. The joints, or proglottides, are proportionately short; in all cases the breadth exceeding the length several times. They are transversely linear, slightly widest back of the middle, with the posterior angles rounded, and the posterior margin slightly but irregularly crenate. The anterior immature joints exhibit no distinct traces of interior organs, while succeeding ones have a more coarsely granular appearance due to the presence of immature eggs. The pair of longitudinal vessels common to all tapeworms are conspicuously visible in the fragments. At the posterior part of the body, the joints in a ripe condition are of a pale brown colour, due to the contained eggs. The ripe joints do not form an unbroken series, but are interrupted here and there by a variable number, one or more, of sterile joints. (See the accompanying figure.) The ripe joints are larger than the others—longer, broader, and thicker. The anterior few are paler, and the eggs within less well developed. The eggs distend the joints, and appear to be diffused throughout a simple cavity bounded by the thin parietes of the joints, and not inclosed in ramified or dendritic uterine pouches as in most tapeworms.



One-half of two fertile joints filled with mature eggs; with that of an intervening sterile joint. Magnified 20 diameters.

The accumulation of eggs in the joints conceals everything else from view, so that the arrangement of the different parts of the generative apparatus could not be determined. In the contiguous joints, devoid of eggs, generally there is to be seen a narrow clavate organ, which I suspect to be the seminal receptacle. It occupies the forepart of one side of the joints, commencing with its thick end near the median line, and proceeding outwardly, somewhat tortuous and tapering, along the anterior border of the joints. After passing the longitudinal vessel, the tubular prolongation of the organ curves backward and outward to the aperture of the genital apparatus. Besides the clavate pouch, and diffused granular matter, the joints devoid of eggs exhibit, scattered here and there, usually from two to four or five rounded or oval bodies, which I have supposed to be testicular. The genital apertures, generally not observed except in those joints which presented the supposed seminal receptacles, are situated on one side of the body, at the lateral margin of the joints immediately behind the middle.

The longest fragment of the specimens under consideration measures thirteen inches, and appears to comprise a nearly complete worm. The anterior attenuated extremity, distinctly jointed, contains twelve joints in the length of one-tenth of an inch; and these joints measure 0.625 mm.

in width. An inch from the posterior extremity, the joints are about half a millimetre long, by two and a quarter millimetres wide, and subsequently they narrow to about two millimetres. The first ripe joint, or that containing mature eggs, is the eleventh from the last. Then succeed four white joints, or such as do not exhibit eggs within; then two brown joints, filled with mature eggs; then two white or sterile joints; then a brown one; and lastly a white one.

Several of the most delicate fragments, which may in part or all have pertained to the same individual, as the long one just described, are as follows:—

A fragment of an inch in length, thread-like, and distinctly jointed, has the joints 0.2 mm. long, by 0.625 mm. broad. A fragment of three-fourths of an inch, less distinctly jointed, has the joints 0.125 mm. long, with those at the fore part 0.15 mm. wide, and those behind 0.375 mm. wide. A third fragment of one-fourth of an inch, apparently from the neck, and in part obscurely jointed, is only one-tenth of a millimetre in width.

A fragment from the posterior part of the body, three and a quarter inches in length, has the joints half a millimetre long, and two and a quarter milimetres wide at the fore part, and three-fourths of a millimetre long with the same width as before, at the back part. The joints of this fragment, as relates to the absence or presence of mature eggs, indicated by the white and brown colour, are as follows: commencing with 2 white, 1 brown, and then successively 2, 1, 6, 1, 1, 1, 5, 1, 18, 1, 3, 1, 3, 5, 1, 1, 3, 4, 1, 1, 3, 1, 1, 5, 2, 7, 1, 10, 1, 6, 3, 3, 1, 5, 1, 2, 2, 2, 2. The anterior five of the brown joints are paler than those succeeding, from the eggs being less developed and coloured. In all the other brown segments the eggs are mature and contain six hooked embryos. Of three segments together, of which the first and last are distended with eggs, and the intermediate one is devoid of these and is white, the former are 0.675 mm. long, by 2.125 mm. wide, while the latter is 0.5 mm. long by 2 mm. wide. (The accompanying figure represents the one-half of these three segments, magnified 20 diameters.)

In a fragment of seven inches from the fore part of the body, evidently from another individual than the longer specimen above described, none of the joints are ripe. The anterior joints are 0.45 mm. long by one millimetre wide; the posterior joints are 0.625 mm. long by 1.625 mm. wide. Of the last ten joints, the first, eighth, and last exhibited immature eggs.

In another fragment of four inches with no ripe joints those in advance are 0.375 mm. long by 1.25 mm. wide, and those behind 0.75 mm. long by 2.25 mm. wide.

A posterior fragment of four inches has a few of the back joints with mature eggs. The anterior joints measure 0.45 mm. long by 1.875 mm. wide. Of the posterior joints, two brown ones distended with eggs measure 0.7 mm. long by 2.25 wide, while an intervening sterile joint is 0.5 mm. long by 2.075 mm. wide, and a succeeding one in the same condition is 0.55 mm. long by 2.125 mm. wide. The first mature segment is the twenty-ninth from the last, then succeed three sterile joints, then a mature one, then in the order 1, 1, 12, 5, 3, 1, 1. Another posterior fragment of five inches has most of the joints brown or ripe and occupied with mature eggs, but here and there the series is interrupted by one or two joints devoid of eggs. The anterior joints measure 0.675 mm. long by 1.625 wide; the posterior 0.825 mm. long by 1.75 mm. wide.

The mature eggs are raw sienna-coloured and mostly spherical, and usually measure 0.072 mm. in diameter. A few oval eggs measure 0.08 mm. by 0.072 mm. The inclosed embryos are oval, and measure 0.04 by 0.032 mm. They are provided with six hooks arranged in three pairs.

Very different from the common species of tapeworms which infest man, the specimens under consideration appear to me to sufficiently approximate the description of *Tænia flavopunctata* as to render it probable they may belong to this species. This has been but once previously seen and recognized, and was first described in 1858 by Dr. Weinland (*An Essay on the Tapeworms of Man*, p. 49, Cambridge), from specimens preserved in the museum of the Medical Improvement Society of Boston. They were discharged from a healthy infant of nineteen months, and consisted of fragments without the head. The length of the worm was estimated to be from eight to twelve inches. Some of the pieces consisted of young joints one-fifth of a millimetre long by one to one and a quarter millimetre broad. Other pieces at their forepart consisted of white immature joints from one-third to half a millimetre long by one and a half to two millimetres broad; while mature joints at the back part were of a grayish hue, and measured one millimetre long by one and a half to two millimetres broad. At the middle of the joints was a yellowish spot, which was viewed by Dr. Weinland as due to the testicle, and from it the species was named. Dr. Weinland remarks that the configuration of the uterus differs greatly from that in other tapeworms. He says there is no main stem in the midst with lateral branches as in the latter, but, on the contrary, the eggs are crowded over the whole joint. The eggs as described are globular, and measure 0.054 mm.

Prof. Leuckart (*Die Menschlichen Parasiten*, Leipzig, 1863, 397), who received a fragment of the *Tænia flavopunctata* from Dr. Weinland, says of it, that the joints had lost their yellow spot, and the mature joints were brownish-gray, due to the eggs. He observes that the uterus is a simple broad cavity, nearly coextensive with the joints. The size of the eggs he gives as 0.06 mm.

In most respects our specimens accord with the description of *Tænia flavopunctata*. In the size of the worms and in construction they are nearly alike. In ours the joints are slightly shorter and wider, and none exhibit the yellow spot ascribed to *T. flavopunctata.* The latter character is inconstant, for it had disappeared in the specimen examined by Prof. Leuckart. The conformation of the uterus is the same in our specimens as in those of *T. flavopunctata* ; and the peculiar condition I have described of the series of mature joints being here and there interrupted by sterile ones, has also been indicated both by Weinland and Leuckart as occurring in *T. flavopunctata.* The appearance of this alternation of fertile and sterile joints, represented in figure 117 of Leuckart, is the same in our specimens, as may be seen by comparing the figure accompanying the present communication. In our specimens the mature eggs are considerably larger than the measurements given of those of *T. flavopunctata.* The figure referred to of Leuckart represents the seminal receptacles as much larger and more conspicuous than they appear in any of our specimens, but this I suspect to be a variable character. Under the circumstances I am disposed to view our specimens as also pertaining to *T. flavopunctata,* leaving it to further opportunities of investigation to determine the correctness of my view.

If our specimens may then be regarded as belonging to *T. flavopunctata,* it is the second time the species has been observed, in both cases in this country and infesting children. It is not improbable that the species is more common than the observations would warrant us in believing, for from the smallness of the worm and the generally prevailing ignorance of the distinctions in the more common species, it might readily be passed for immature portions of these.

ARTICLE IX.

CORTICAL LESIONS OF THE BRAIN. A COLLECTION AND ANALYSIS OF THE AMERICAN CASES OF LOCALIZED CEREBRAL DISEASE.

By M. ALLEN STARR, A.M., M.D., Attending Physician, New York Dispensary; Assistant in New York Polyclinic, Department of Nervous Diseases.

IN a former paper upon the subject of localization[1] cases of lesion of the frontal, temporal, occipital, and parietal regions were considered. It was found that disease of the frontal region, though sometimes latent, produced in many cases mental symptoms of various kinds which were to be traced to a lack of self-control; that disease of the temporo-sphenoidal region caused deafness in the opposite ear with loss of auditory memories; and possibly some disturbance of the sense of smell; that disease of the occipital lobes produced blindness and loss of memory of objects recognized by sight, the blindness being in one-half of both eyes when one occipital

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[1] American Journal of the Medical Sciences, April, 1884.